

REMARKS

Claims 1-17 are pending. By this Amendment, claims 1, 7 and 11 are amended to recite that the invention is for solid-liquid separation. Claims 15-17 are added. New independent claims 15-17 combines the features of original claims 1, 7, 11 respectively with the features of claim 2. No new matter is added.

The indication on page 12, item 22 of the Office Action that claim 2 recite allowable subject matter is acknowledged.

Reconsideration is respectfully requested.

I. REPLY TO REJECTIONS

On page 2, item 2 of the Office Action, claims 1, 3-4 and 7-9 are rejected under 35 U.S.C. §102(b) over U.S. Patent No. 4,491,517 to Janovac. The rejection is respectfully traversed.

Applicants respectfully submit that Janovac fails to disclose a solid-liquid separation filter cloth composed of a plurality of yarn in the transverse and the longitudinal directions, the filter cloth comprising a filtering portion having a structure and density according to desired filtering characteristics for separating liquid from a mixture consisting of solids and liquid, in which filter cloth is further to be arranged against a filtering element in a filtering apparatus, and an underside of the filter cloth, i.e., a portion facing the filtering element, comprises substantially parallel yarns that are thicker than the rest of the yarns of the cloth, and that the thicker yarns are placed at predetermined intervals defined by the other yarns of the filter cloth extending parallel thereto to form parallel channels therebetween to enable the filtered liquid to flow in the direction of the surface of the filtering element between the filtering portion of the filter cloth and the filtering element, as recited in claim 1.

Further, Janovac fails to disclose a solid-liquid separation filtering module to be arranged on a filtering element as the filtering surface when liquid is separated from a mixture

consisting of solids and liquids by means of a filtering apparatus, which filtering module is made of filter cloth comprising a filtering layer composed of yarns in the transverse and the longitudinal directions, and an underside of the filter cloth, i.e., the surface to be against the filtering element, is comprised of substantially parallel yarns that are thicker than the other yarns of the filter cloth, and that channels are formed between the thicker yarns by the placement of the thicker yarns at predetermined intervals defined by the other yarns of the filter cloth extending parallel thereto, wherein the liquid filtered by the cloth is allowed to flow in the direction of a surface of the filtering element, as recited in claim 7.

Firstly, Janovac fails to disclose channels formed between the thicker yarns whereby filtered liquid is allowed to flow.

Janovac discloses a screen 10 constructed by alternating crimped wire 12 with a straight wire 14 in one direction while a pair of identical straight wires 16 run in the other direction so that each of the wire is interwoven to create a screen where each opening on the screen 10 is surrounded by each of the four wires that lie in a separate plane (Fig. 1; col. 1, lines 45-60). The screen is a sieve for separating materials according to size used with a separating machine (col. 1, lines 40 - 45).

Fig. 2 of Janovac discloses that no parallel channels are formed between the thicker wires 14. Instead, the portions between wires 14 is occupied by the crimped wire 12 and one of the alternating straight wires 16 rather than a channel being formed. Between the wires 14 are the knuckles of the crimped wire 12 that occupy the portions between the straight wire 14.

Further, Janovac cannot form parallel channels. Janovac discloses that each of the wires 12, 14 and both wires 16 must surround each opening in the screen 10. Therefore, the crimped wire 12 must always be positioned between the wires 14. Any modification of enlarging the portion between the wires 14 by removing crimped wire 12 to increase the portion between wires 14 would be against the teaching of Janovac.

Secondly, Janovac fails to disclose a filter cloth. As defined by the New Oxford Dictionary of English, as attached, defines that a filter is a porous device for removing impurities or solid particles from a liquid or a gas passed through it, and a cloth is a woven or felted fabric made from wool, cotton or a similar fiber. By this definition, Janovac fails to disclose a filter cloth. Rather, Janovac discloses a metallic screen. In the Dictionary, screen is defined as a large sieve (a wire mesh) or riddle (a large coarse sieve), for sorting substances, especially for sorting substances such as grain or coal into different sizes. That is, as disclosed in Janovac and defined in the New Oxford Dictionary, the screen of Janovac is used to separate solid materials according to size. It is not for separating liquid from a mixture consisting of solids and liquid, and therefore does not have the structural features recited in claims 1 and 7. That is, the functional use does structurally differentiate the invention as claimed in claims 1 and 7 from that disclosed in Janovac. For example, the large sized holes cannot filter liquids from a solid-liquid mixture.

Consequently, claims 1 and 7 are patentable over Janovac. Claims 3-4, which depend from claim 1, and claims 8-9, which depend from claim 7, are likewise distinguishable over the applied reference for at least the reasons discussed above and for the additional features they recite. Withdraw of the rejection of claims 1, 3-4, and 7-9 is respectfully requested.

On page 5, item 10 of the Office Action, claims 1 and 5-6 are rejected under 35 U.S.C. §103(a) over Janovac in view of WO 02/05974 to Carr. The rejection is respectfully traversed.

As discussed above, Janovac fails to disclose the features of claim 1. Regarding Carr, applicants respectfully submit Carr is not prior art to this application. Carr has an international publication date of January 24, 2002 which is after the application filing date of November 8, 2001. Furthermore, this application claims priority to Finnish application 991381 filed June 16, 1999 and PCT/FI00/00413 filed May 9, 2000. Therefore, applicants

note that Carr has a publication date well after the effective U.S. filing date of this application. Further, applicants note that Carr claims priority to the filing date of U.S. Patent No. 6,431,368 to Carr (hereinafter "Carr US"). Carr US has a filing date of July 5, 2000, but this date is after the claimed priority dates of this application. Therefore, neither Carr nor Carr US are proper prior art.

Therefore, claim 1 is patentable over the applied references for the reasons discussed above. Regarding claims 5-6, which depend from claim 1, are likewise distinguishable over the applied references for at least the reasons discussed above and for the additional features they recite.

In the case of claim 5, as discussed in item 12, such is not a proper rejection. Further, U.S. Patent No. 3,086,242 to Cook et al. fails to overcome the deficiencies in Janovac. U.S. Patent Application publication 2002/0066360A1 to Greenhalgh et al. is not prior art as Greenhalgh's U.S. filing date of October 31, 2000 and publication date of June 6, 2002 are both well after the claimed priority date of this application.

Consequently, claims 1, 5-6 are patentable over the applied references.

On page 8, item 14 of the Office Action, claims 11-13 are rejected under 35 U.S.C. §103(a) over U.S. Patent No. 5,221,008 to Derrick, Jr. et al. (hereinafter "Derrick"), in view of Janovac and Merriam Webster Collegiate Dictionary 10th Edition page 1370 (hereinafter "dictionary"). The rejection is respectfully traversed.

As discussed above, Janovac is deficient for failure to disclose, *int e alia*, the channels which are also recited in claim 11. Therefore, Derrick with its acknowledged lack of channels, and the dictionary, in combination, fail to disclose the features of claim 11.

Consequently, claim 11 is patentable over the applied references. Claims 12 and 13, which depend from claim 11, are likewise distinguishable over the applied references for at

least the reasons discussed above and for the additional features they recite. Withdrawal of the rejection is respectfully requested.

On page 10, item 18 of the Office Action, claim 10 is rejected under 35 U.S.C.

§103(a) over Janovac in view of Carr and Greenhalgh. The rejection is respectfully traversed.

As discussed above, Carr and Greenhalgh are not prior art and further they fail to overcome the deficiencies in Janovac. As discussed above, Janovac alone fails to disclose the features of claim 7, from which claim 10 depends. Consequently, claim 10 is patentable over the applied references for at least its dependence from claim 7 as well as for the additional features it recites.

Withdrawal of the rejection of claim 10 is respectfully requested.

On page 11, item 20 of the Office Action, claim 14 is rejected under 35 U.S.C.

§103(a) over Derrick and Janovac in further view of Carr and Greenhalgh. The rejection is respectfully traversed.

As discussed above for claim 11, Carr and Greenhalgh are not prior art. Further, as discussed above, Derrick is deficient and Janovac fails to overcome the deficiencies in Derrick. Therefore, the combination of the applied references fails to disclose each and every feature of claim 11 from which 14 depend. Consequently, claim 14 is patentable over the applied references for at least claim 14's dependence from claim 11 and for the additional features it recites. Withdrawal of the rejection of claim 14 is respectfully requested.

II. CONCLUSION

For the reasons discussed above, applicants submit that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-17 are respectfully requested.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Enclosure:

Dictionary Definitions

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